

III. Remarks/Arguments

Reconsideration of this application in light of the above amendment and the following remarks is requested. Claims 1-8 are pending in this application. Claim 1 has been amended and claims 2-8 have been maintained in their previous form.

Claims 1-8 stand rejected under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 5,756,994 to Bajic (hereinafter "Bajic I") in view of UK Patent Application No. 2,324,906 A to Bajic (hereinafter "Bajic II"). The rejections are moot as independent claim 1 has been amended and claims 2-8 depend from and further limit claim 1. More specifically, claim 1 has been amended to make clear that the entrained sample ions are redirected before they reach the exit aperture. *See claim 1 as amended above.*

Bajic I and Bajic II cannot be applied to reject amended claim 1 under 35 USC § 103, which provides that:

A patent may not be obtained ... if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains ... (emphasis added).

Thus, when evaluating a claim for determining obviousness, all limitations of the claim must be evaluated. However, since neither Bajic I nor Bajic II teach an "exit aperture being located in the flow passage between the entrance aperture and the exhaust port, wherein the flow passage is shaped to redirect substantially all the gas and entrained sample ions entering the entrance aperture before they reach the exit aperture and to cause said redirected ions to flow within a distance 'd' of the exit aperture" as claimed in amended claim 1, it is impossible to render the subject matter of amended claim 1 as a whole obvious, and the explicit terms of the statute cannot be met.

Furthermore, with reference to the second paragraph on page 4 of the Office action, Applicant respectfully traverses the Examiner's assertion that Bajic II teaches the exit orifice 7 being located in the flow passage between the entrance aperture 5 and the exhaust pump 19. As discussed during the telephonic interview of July 17, 2003, Bajic II teaches arranging the exit orifice 7 in a dead region where there is no net flow of ions, and therefore, is out of the flow path between the entrance orifice 5 and the exhaust pump 19.

Referring to Fig. 1 of Bajic II, the flow path enters through entrance orifice 5 and is split upon traveling up the leg of the T-shaped interface region. In the words of Bajic II, "[t]he greater proportion of the flow passes into one arm of the T towards the vacuum outlet 19 [i.e. exhaust pump]. The other arm of the T contains an exit orifice 7 **This segment 20 of the T forms a 'dead volume' in which the gas flow is substantially stagnant or turbulent so that the velocity of the sample ions and any other molecules or particles within this segment is low and has no net direction.**" *Bajic II, page 12, lines*

11-21 (*emphasis added*). Thus, the exit orifice 7 of Bajic II is located outside of the above-defined flow passage from the entrance orifice 5 to the vacuum outlet 19.

By arranging the exit orifice 7 of Bajic II outside of the flow path and in the dead region 20, the probability that unwanted molecules and particles will penetrate through the mass spectrometer and disrupt the ion detection signal, i.e. streaming of such unwanted molecules and particles, is decreased. See *Bajic II*, page 12, lines 21-25. Thus, Bajic II cannot be stretched to disclose "the exit aperture being located in the flow passage between the entrance aperture and the exhaust port" as claimed in amended claim 1.

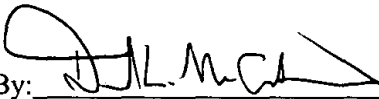
As Bajic I clearly provides for positioning of the exit orifice 11 within the line of sight of the entrance orifice 10 and along the flow path between the entrance orifice and the evacuation port 14 (*Fig. 1 of Bajic I*), and Bajic II clearly provides for positioning of the exit orifice 7 outside of the line of sight of the entrance orifice 5 and outside the flow path between the entrance orifice and the vacuum outlet 19 (*for the reasons described above*), there is no motivation or suggestion to combine these two references to disclose the subject matter of amended claim 1.

In view of the foregoing, it is apparent that neither Bajic I nor Bajic II, either singly or in any combination, teach, suggest, or render obvious the unique combination recited in amended independent claim 1. It is therefore submitted that claim 1 distinguishes over the cited references in a patentable sense, and is therefore allowable over those references and the remaining references of record.

Claims 2-8 depend from and further limit independent claim 1 in a patentable sense, and, for this reason and the reasons set forth above, are also deemed to be in condition for allowance.

For the foregoing reasons and for other reasons clearly apparent, Applicant respectfully requests full allowance of claims 1-8.

Respectfully submitted,

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